## APR 0 1 2008

10/764,852

## Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1. (canceled).
- 2. (previously presented) A process for production of acrylic acid, which is a process comprising the step of carrying out a catalytic gas phase oxidation reaction of acrolein with molecular oxygen or a molecular-oxygen-containing gas, thereby producing the acrylic acid;

wherein the reaction is carried out in the presence of a composite-oxide catalyst shown by the following general formula (1):

Mo<sub>a</sub>V<sub>b</sub>W<sub>c</sub>Cu<sub>d</sub>A<sub>e</sub>B<sub>f</sub>C<sub>g</sub>O<sub>x</sub> (1) (wherein: Mo is molybdenum; V is vanadium; W is tungsten; Cu is copper; A is at least one element selected from among cobalt, nickel, iron, lead, and bismuth; B is at least one element selected from among antimony, niobium, and tin; C is at least one element selected from among silicon, aluminum, titanium, and zirconium; and O is oxygen; and further, a, b, c, d, e, f, g, and x denote atomic ratios of Mo, V, W, Cu, A, B, C, and O respectively; and, in the case of a = 12, the following inequalities are satisfied:  $2 \le b \le 15$ ;  $0 < c \le 10$ ;  $0 < d \le 6$ ;  $0 < c \le 30$ ;  $0 \le f \le 6$ ; and  $0 \le g \le 60$ ; and x is a numerical value as

wherein a supply source of said element A for preparing the catalyst is a composite of at least one element selected from among cobalt, nickel, iron, lead and bismuth and at least one element selected from among molybdenum, vanadium, and copper.

determined by the oxidation state of each element);

10/764,852

- 3. (previously presented) A process for production of acrylic acid according to claim 2, which comprises the steps of:
- (1) introducing a mixed gas into a first fixed-bed multitubular reactor to thereby produce an acrolein-containing gas, wherein the mixed gas contains high-concentration-propylene and oxygen, but is substantially free from steam, and wherein the first fixed-bed multitubular reactor is packed with a composite-oxide catalyst including molybdenum and bismuth as essential components;
- (2) introducing the resultant acrolein-containing gas into a second fixed-bed multitubular reactor to thereby produce an acrylic-acid-containing gas, wherein the second fixed-bed multitubular reactor is packed with a composite-oxide catalyst including molybdenum and vanadium as essential components; and
- (3) introducing the resultant acrylic-acid-containing gas into an acrylic-acid-absorbing column to thereby collect the acrylic-acid-containing gas as a high-concentration acrylic acid solution;

wherein the composite-oxide catalyst as recited in claim 2 is used as the composite-oxide catalyst which is packed into the second fixed-bed multitubular reactor; and

with the process further comprising the steps of: dividing the inside of each reaction tube of the second fixed-bed multitubular reactor in a tubular axial direction to thereby form at least two reaction zones; and then packing these reaction zones with the composite-oxide catalysts as recited in claim 2 different as to the amount of element A in such a manner that the amount of element A decreases from the gas-inlet side of each reaction tube toward its gas-outlet side.

(18450.DOC) (Amendment and Remarks--page 3 of 15)

10/764,852

4. (original) A process for production of acrylic acid according to claim 3, wherein the mixed gas which is introduced into the first fixed-bed multitubular reactor further contains a saturated hydrocarbon which does substantially not react by oxidation in this reactor.